WE CLAIM:

1. A method of making stress response factors (SRFs) for modulating an immune response in an animal, said method comprising:

(a) growing a selected bacteria in a media outside of said animal to a selected level of viability;

(b) stressing said selected bacteria thereby initiating the release of said SRFs; and

(c) collecting said SRFs.

2. The method of Claim 1 wherein step (b) comprises reducing the bioavailability of nutrients to said bacteria.

3. The method of Claim 1 wherein step (b) is selected from the group consisting of: (i) altering the pH of said media to affect the bioavailability of nutrients in said media; (ii) removing nutrients from said media; (iii) reducing the volume of said media; (iv) removing said bacteria from said media by centrifugation and suspending said bacteria in a non-nutritive isotonic solution; and (v) adding additional bacteria to said media.

4. The method of Claim 2 wherein said non-nutritive isotonic solution comprises 0.9% sodium chloride.

5. A composition for modulating the immune system of an animal comprising an effective amount of stress response factors (SRFs) sufficient to modulate macrophages in said animal.

6. The composition of Claim 5 wherein said SRFs are made by the method of Claim 1.

7. The composition of Claim 6 wherein said selected bacteria is commensal to said animal.

8. The composition of Claim 6 wherein said commensal bacteria comprises a Gram positive, non-pathogen. bacteria.

9. The composition of Claim 8 wherein said Gram positive, non-pathogenic bacteria is selected from the family *Lactobacillaceae*.

10. The composition of Claim 5 wherein said bacteria is selected by measuring the immunomodulating capacity of said SRFs for enhancing, desensitizing or suppressing an immune response.

11. The composition of Claim 5 wherein said SRFs comprise a molecular weight of less than about 50 kDa.

12. The composition of Claim 5 wherein said SRFs comprise a molecular weight of less than about 10 kDa.

13. The composition of Claim 5 wherein said SRFs comprise an arbitrary unit comprising an optical density of a cell-free suspension of said SRFs of greater than about 0.001 measured at 255 nm.

14. The composition of Claim 4 wherein said SRFs are synthesized in vitro by cloning or by chemical synthesis.

15. A method for modulating the immune system of an animal by activating macrophages in said animal to release cytokines comprising interleukins or to desensitize macrophage to prevent cytotoxic killing of cells, comprising administering an effective amount of SRFs to so activate or desensitize said macrophages.

16. The method of claim 14 wherein said effective amount of said SRFs is determined by measuring said SRFs ability to activate macrophages in vitro to release interleukins and by said SRFs interaction with lymphoid cells, including the up- or down- regulation of macrophage function as measured by the macrophage-dependent responses of T lymphocytes to a mitogen, the CD3 specific monoclonal antibody.

17. The method of Claim 14 wherein said animal is protected against local or systemic inflammatory conditions or aberrant immune responses selected from the group consisting of shock, autoimmune diseases, allergic reactions, and immune suppression.

18. The method of Claim 14 wherein said animal is selected from poultry and livestock and said SRFs are administered to increase feed efficiencies of said animal and to reduce bacterial pathogens in said animal.

19. The method of Claim 14 wherein said SRFs are administered to said animal in a delivery form selected from the group consisting of oral delivery, delivery in nasal sprays, intraperitoneal delivery, intravenous delivery or topical delivery.

20. The method of claim 14 wherein said animal is a human and said SRFs comprise Fraction II, Fraction III or a combination thereof in a parenteral dose of about 10,000 A_{255} nm units.

21. The method of claim 14 wherein said SRFs are administered orally as a general prophylaxis to modulate the immune system to resist infections.

22. A method for desensitizing a human against LPS-induced shock comprising administering SRFs orally or parenterally in a dosage of about 240,000 to 1.2 million units per day for 3 days, wherein said human will be protected from said LPS-induced shock for about 7 days.